CLAIMS

1. A lipid-improving agent containing a triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position of the triglyceride(s).

2. The lipid-improving agent according to claim 1, wherein the agent contains a triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position and saturated fatty acid and/or mono-unsaturated fatty acid are/is bonded to 1,3-positions of the triglyceride(s).

3. The lipid-improving agent according to claim 1 or 2, wherein the poly-unsaturated fatty acid is an omega-6 type unsaturated fatty acid.

4. The lipid-improving agent according to any of claims 1 to 3, wherein the omega-6 unsaturated fatty acid is arachidonic acid.

5. The lipid-improving agent according to any of claims 1 to 4, wherein the agent contains a fat/oil prepared by incubation of a microorganism which is able to produce a triglyceride(s) where arachidonic acid is bonded to 2-position of the triglyceride(s).

6. The lipid-improving agent according to any of claims 1 to 5, wherein the microorganism mentioned in claim 5 is a microorganism belonging to genus *Mortierella*.

7. The lipid-improving agent according to claim 1 or 2, wherein the poly-unsaturated fatty acid is an omega-3 type unsaturated fatty acid.

8. The lipid-improving agent according to claim 1 or 2, wherein the poly-unsaturated fatty acid is an omega-9 type unsaturated fatty acid.

9. The lipid-improving agent according to any of claims 1 to 3, wherein the omega-6 type poly-unsaturated fatty acid is 9,12-octadecadienoic acid (linoleic acid) 18:2ω6, 6,9,12-octadecatrienoic acid (γ-linolenic acid) 18:3ω6, 8,11,14-eicosatrienoic acid (dihomo-γ-linolenic acid) 20:3ω6,5,8,11,14-eicosatrienoic acid (arachidonic

acid) 20:4ω6, 7,10,13,16-docosatetraenoic acid 22:4ω6 or 4,7,10,13,16-docosapentaenoic acid 22:5ω6.

10. The lipid-improving agent according to claim 1, 2 or 7, wherein the omega-3 type unsaturated fatty acid is 9,12,15-octadecatrienoic acid (α-linolenic acid) 18:3ω3, 6,9,12,15-octadecatetraenoic acid (stearidonic acid) 18:4ω3, 11,14,17-eicosatrienoic acid (dihomo-α-linolenic acid) 20:3ω3, 8,11,14,17-eicosatetraenoic acid 20:4ω3, 5,8,11,14,17-eicosapentaenoic acid 20:5ω3, 7,10,13,16,19-docosapentaenoic acid 22:5ω3 or 4,7,10,13,16,19-docosahexaenoic acid 22:6ω3.

11. The lipid-improving agent according to claim 1, 2 or 8, wherein the omega-9 type unsaturated fatty acid is 6,9-octadecadienoic acid 18:2ω9, 8,11-eicosadienoic acid 20:2ω9 or 5,8,11-eicosatrienoic acid (mead acid) 20:3ω9.

12. The lipid-improving agent according to claim 2, wherein the saturated fatty acid or the mono-unsaturated fatty acid is selected from octanoic acid (caprylic acid) 8:0, decanoic acid (capric acid) 10:0, dodecanoic acid (lauric acid) 12:0, tetradecanoic acid (myristic acid) 14:0, hexadecanoic acid (palmitic acid) 16:0, octadecanoic acid (stearic acid) 18:0, 9-octadecanoic acid (oleic acid) 18:1ω9, arachidic acid 20:0 and behenic acid 22:0 and the fatty acids bonding to 1- and 3-positions are same or combined.

13. The lipid-improving agent according to any of claims 1 to 12, wherein the triglyceride(s) is selected from 1,3-dipalmitoyl-2-arachidonoyl glyceride (16:0-20:4ω6-16:0), 1,3-dipalmitoyl-2-5,8,11,14,17-eicosapentanoyl glyceride (16:0-20:5ω3-16:0), 1,3-dipalmitoyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (16:0-22:6ω3-16:0), 1,3-dipalmitoyl-2-dihomo-γ-linolenoyl

glyceride (16:0-20:3ω6-16:0), 1,3-dipalmitoyl-2-meadnoyl glyceride (16:0-20:3ω9-16:0), 1,3-dicapryloyl-2-arachidonoyl glyceride (8:0-20:4ω6-8:0), 1,3-dicapryloyl-2-5,8,11,14,17-eicosapentanoyl glyceride (8:0-20:5ω3-8:0), 1,3-dicapryloyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (8:0-22:6ω3-8:0), 1,3-dicapryloyl-2-dihomo-γ-linolenoyl glyceride (8:0-20:3ω6-8:0), 1,3-dicapryloyl-2-meadnoyl glyceride (8:0-20:3ω9-8:0), 1,3-dioleoyl-2-arachidonoyl glyceride (18:1ω9-20:4ω6-18:1ω9), 1,3-dioleoyl-2-5,8,11,14,17-eicosapentanoyl glyceride (18:1ω9-20:5ω3-18:1ω9), 1,3-oleoyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (18:1ω9-22:6ω3-18:1ω9), 1,3-dioleoyl-2-dihomo-γ-linolenoyl glyceride (18:1ω9-20:3ω6-18:1ω9) and/or 1,3-dioleoyl-2-meadnoyl glyceride (18:1ω9-20:3ω9-18:1ω9).

14. The lipid-improving agent according to claim 1, wherein it lowers neutral fat (triglyceride(s)) and/or cholesterol in blood.

15. The lipid-improving agent according to claim 1, wherein it increases HDL-cholesterol in blood.

16. The lipid-improving agent according to claim 1, wherein it burns stored fat.

17. The lipid-improving agent according to claim 1, wherein it burns edible fat.

18. The lipid-improving agent according to claim 1, wherein it is mediated by a transcription factor of an intranuclear receptor type (PPAR).

19. The lipid-improving agent according to claim 1 or 14, wherein the PPAR is PPARα of liver and enhances PPARα and/or related gene expression.

20. The lipid-improving agent according to claim 1, 18 or 19, wherein the related gene is hepatic β-oxidation gene.

21. The lipid-improving agent according to claim 1, 18 or 19, wherein the PPAR is a PPARγ of fat tissue and suppresses PPARγ and/or related gene expression.

22. A composition having a lipid-improving action which contains a triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position of the triglyceride(s).

23. The composition having a lipid-improving action according to claim 22, wherein the composition contains a triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position and saturated fatty acid and/or mono-unsaturated fatty acid are/is bonded to 1,3-positions of the triglyceride(s).

24. The composition according to claim 22 or 23, wherein the poly-unsaturated fatty acid is an omega-6 type unsaturated fatty acid.

25. The composition according to claim 24, wherein the omega-6 unsaturated fatty acid is arachidonic acid.

26. The composition according to any of claims 22 to 25, wherein the composition contains fat/oil prepared by incubation of a microorganism which is able to produce a triglyceride(s) where arachidonic acid is bonded to 2-position of the triglyceride(s).

27. The composition according to any of claims 22 to 26, wherein the microorganism mentioned in claim 26 is a microorganism belonging to genus *Mortierella*.

28. The composition according to claim 22 or 23, wherein the poly-unsaturated fatty acid is an omega-3 type unsaturated fatty acid.

29. The composition according to claim 22 or 23, wherein the poly-unsaturated fatty acid is an omega-9 type unsaturated fatty acid.

30. The composition according to any of claims 22 to 24, wherein the omega-6 type unsaturated fatty acid is 9,12-octadecadienoic acid (linoleic acid) 18:2ω6, 6,9,12-octadecatrienoic acid (γ-linolenic acid) 18:3ω6,

8,11,14-eicosatrienoic acid (dihomo-γ-linolenic acid) 20:3ω6,5,8,11,14-eicosatrienoic acid (arachidonic acid) 20:4ω6, 7,10,13,16-docosatetraenoic acid 22:4ω6 or 4,7,10,13,16-docosapentaenoic acid 22:5ω6.

31. The composition according to 23, wherein the omega-3 type unsaturated fatty acid is 9,12,15-octadecatrienoic acid (α-linolenic acid) 18:3ω3, 6,9,12,15-octadecatetraenoic acid (stearidonic acid) 18:4ω3, 11,14,17-eicosatrienoic acid (dihomo-α-linolenic acid) 20:3ω3, 8,11,14,17-eicosatetraenoic acid 20:4ω3, 5,8,11,14,17-eicosapentaenoic acid 20:5ω3, 7,10,13,16,19-docosapentaenoic acid 22:5ω3 or 4,7,10,13,16,19-docosahexaenoic acid 22:6ω3.

32. The composition according to claim 29, wherein the omega-9 type unsaturated fatty acid is 6,9-octadecadienoic acid 18:2ω9, 8,11-eicosadienoic acid 20:2ω9 or 5,8,11-eicosatrienoic acid (mead acid) 20:3ω9.

33. The composition according to claim 23, wherein the saturated fatty acid or the mono-unsaturated fatty acid is selected from octanoic acid (caprylic acid) 8:0, decanoic acid (capric acid) 10:0, dodecanoic acid (lauric acid) 12:0, tetradecanoic acid (myristic acid) 14:0, hexadecanoic acid (palmitic acid) 16:0, octadecanoic acid (stearic acid) 18:0, 9-octadecanoic acid (oleic acid) 18:1ω9, arachidic acid 20:0 and behenic acid 22:0 and the fatty acids bonding to 1- and 3-positions are same or combined.

34. The composition according to any of claims 22 to 33, wherein the triglyceride(s) is selected from 1,3-dipalmitoyl-2-arachidonoyl glyceride (16:0-20:4ω6-16:0), 1,3-dipalmitoyl-2-5,8,11,14,17-eicosapentanoyl glyceride (16:0-20:5ω3-16:0), 1,3-dipalmitoyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (16:0-22:6ω3-16:0), 1,3-

dipalmitoyl-2-dihomo-γ-linolenoyl glyceride (16:0-20:3ω6-16:0), 1,3-dipalmitoyl-2-meadnoyl glyceride (16:0-20:3ω9-16:0), 1,3-dicapryloyl-2-arachidonoyl glyceride (8:0-20:4ω6-8:0), 1,3-dicapryloyl-2-5,8,11,14,17-eicosapentanoyl glyceride (8:0-20:5ω3-8:0), 1,3-dicapryloyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (8:0-22:6ω3-8:0), 1,3-dicapryloyl-2-dihomo-γ-linolenoyl glyceride (8:0-20:3ω6-8:0), 1,3-dicapryloyl-2-meadnoyl glyceride (8:0-20:3ω9-8:0), 1,3-dioleoyl-2-arachidonoyl glyceride (18:1ω9-20:4ω6-18:1ω9), 1,3-dioleoyl-2-5,8,11,14,17-eicosapentanoyl glyceride (18:1ω9-20:5ω3-18:1ω9), 1,3-oleoyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (18:1ω9-22:6ω3-18:1ω9), 1,3-dioleoyl-2-dihomo-γ-linolenoyl glyceride (18:1ω9-20:3ω6-18:1ω9) and/or 1,3-dioleoyl-2-meadnoyl glyceride (18:1ω9-20:3ω9-18:1ω9).

35. The composition according to claim 22, wherein it lower neutral fat (triglyceride(s)) and/or cholesterol in blood.

36. The composition according to claim 22, wherein it increases HDL-cholesterol in blood.

37. The composition according to claim 22, wherein it burns stored fat.

38. The composition according to claim 22, wherein it burns edible fat.

39. The composition according to claim 22, wherein it is mediated by a transcription factor of an intranuclear receptor type (PPAR).

40. The composition according to claim 22 or 38, wherein the PPAR is PPARα of liver and enhances PPARα and/or related gene expression.

41. The composition according to claim 22, 23 or 39, wherein the related gene is hepatic β-oxidation gene.

42. The composition according to claim 22 or 38, wherein the PPAR is a PPARγ of fat tissue and suppresses PPARγ and/or related gene expression.

43. The composition according to any of claims 1 to 41, wherein it is a food composition or a pharmaceutical composition.

44. A food composition which contains a triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position of the triglyceride(s) in such a manner that a daily ingested amount of the triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position of the triglyceride(s) for an adult per day in made 0.001 to 20 g in terms of the amount of the poly-unsaturated fatty acid.

45. The food composition according to claim 43, wherein the composition contains a triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position and saturated fatty acid and/or mono-unsaturated fatty acid are/is bonded to 1,3-positions of the triglyceride(s) in such a manner that a daily ingested amount of the triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position and saturated fatty acid and/or mono-unsaturated fatty acid are/is bonded to 1,3-positions of the triglyceride(s) for an adult per day in made 0.001 to 20 g in terms of the amount of the poly-unsaturated fatty acid.

46. The composition according to claim 43 or 44, wherein the composition contains a triglyceride(s) where arachidonic acid is bonded to 2-position and saturated fatty acid and/or mono-unsaturated fatty acid are/is bonded to 1,3-positions of the triglyceride(s) in such a manner that a daily ingested amount of the triglyceride(s) where arachidonic acid is bonded to 2-position and saturated fatty acid and/or mono-unsaturated fatty acid are/is bonded to 1,3-positions of the triglyceride(s) for an adult per day in made 0.001 to 20

g in terms of the amount of arachidonic acid.

47. The food composition according to claim 43 or 45, wherein the composition contains not less than 0.001% by weight of a composition in which the triglyceride(s) is selected from 1,3-dipalmitoyl-2-arachidonoyl glyceride (16:0-20:4ω6-16:0), 1,3-dipalmitoyl-2-5,8,11,14,17-eicosapentanoyl glyceride (16:0-20:5ω3-16:0), 1,3-dipalmitoyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (16:0-22:6ω3-16:0), 1,3-dipalmitoyl-2-dihomo-γ-linolenoyl glyceride (16:0-20:3ω6-16:0), 1,3-dipalmitoyl-2-meadnoyl glyceride (16:0-20:3ω9-16:0), 1,3-dicapryloyl-2-arachidonoyl glyceride (8:0-20:4ω6-8:0), 1,3-dicapryloyl-2-5,8,11,14,17-eicosapentanoyl glyceride (8:0-20:5ω3-8:0), 1,3-dicapryloyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (8:0-22:6ω3-8:0), 1,3-dicapryloyl-2-dihomo-γ-linolenoyl glyceride (8:0-20:3ω6-8:0), 1,3-dicapryloyl-2-meadnoyl glyceride (8:0-20:3ω9-8:0), 1,3-dioleoyl-2-arachidonoyl glyceride (18:1ω9-20:4ω6-18:1ω9), 1,3-dioleoyl-2-5,8,11,14,17-eicosapentanoyl glyceride (18:1ω9-20:5ω3-18:1ω9), 1,3-oleoyl-2-4,7,10,13,16,19-docosahexanoyl glyceride (18:1ω9-22:6ω3-18:1ω9), 1,3-dioleoyl-2-dihomo-γ-linolenoyl glyceride (18:1ω9-20:3ω6-18:1ω9) and/or 1,3-dioleoyl-2-meadnoyl glyceride (18:1ω9-20:3ω9-18:1ω9).

48. The composition according to any of claims 43 to 46, wherein the food composition is functional food, nutritional supplement, designated health food or food for aged people.

49. A process for the production of a composition having a lipid-improving action which is a process for the production of a food composition, characterized in that, a triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position and saturated fatty acid

and/or mono-unsaturated fatty acid are/is bonded to 1,3-positions is compounded, either solely or jointly, with a food material which does not substantially contains a triglyceride(s) where a poly-unsaturated fatty acid is bonded to 2-position and saturated fatty acid and/or mono-unsaturated fatty acid are/is bonded to 1,3-positions or, if contained, the amount is little.